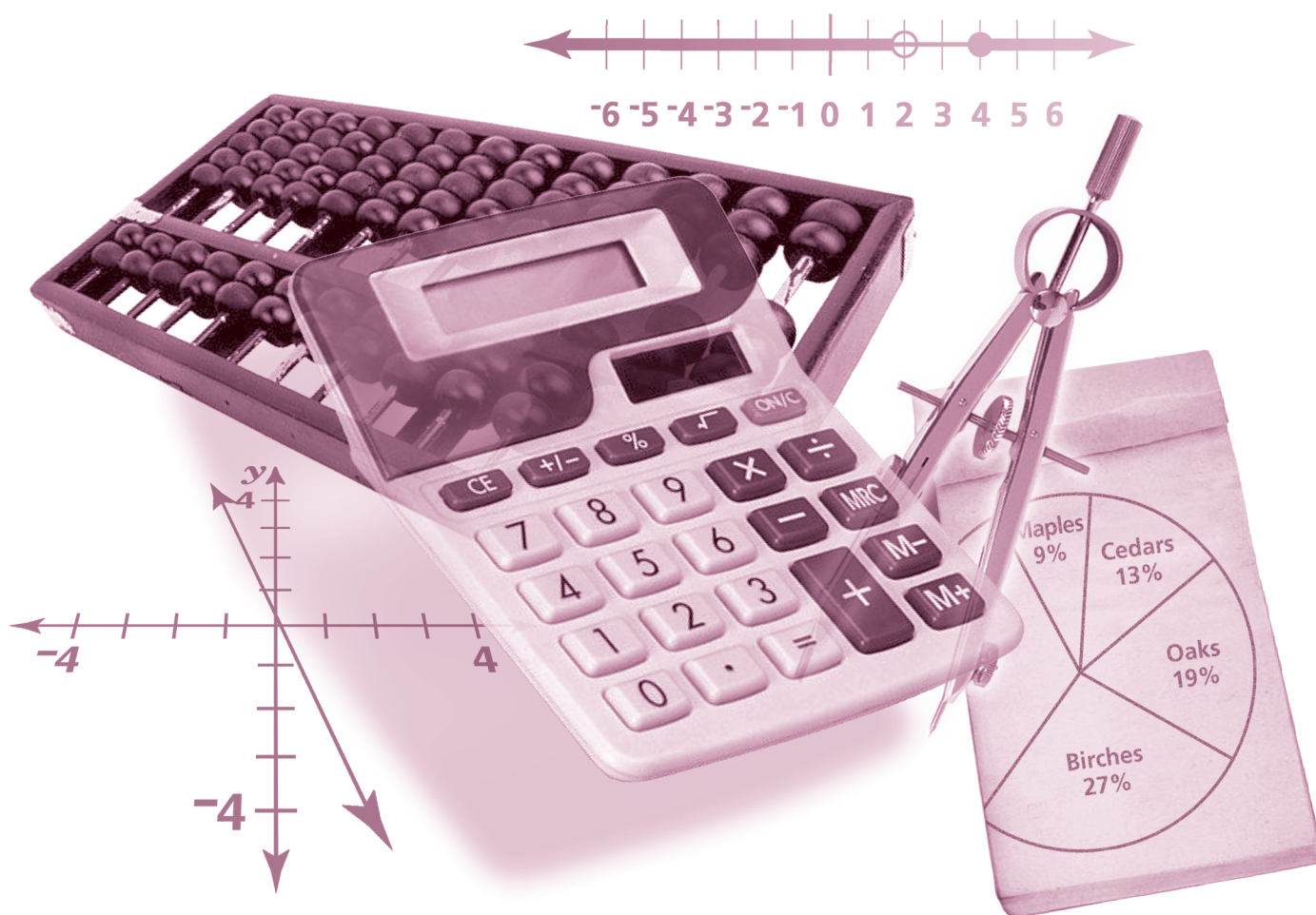


TENNESSEE

Gateway Assessment

Practice Test



Mathematics

Gateway Mathematics Reference Page

Perimeter (P) and Circumference (C)




Any Polygon: $P = \text{sum of side lengths}$
 Rectangle: $P = 2\ell + 2w$
 Circle: $C = 2\pi r$ or πd
 $\pi \approx 3.14$ or $\frac{22}{7}$

Abbreviations

$A = \text{area}$ $d = \text{diameter}$ $r = \text{radius}$
 $B = \text{area of base}$ $h = \text{height}$ $s = \text{length of side}$
 $b = \text{base}$ $\ell = \text{length}$ $V = \text{volume}$
 $C = \text{circumference}$ $P = \text{perimeter}$ $w = \text{width}$

Plane Figures

Area (A)

Triangle  $A = \frac{1}{2}bh$
 Rectangle  $A = \ell w$
 Circle  $A = \pi r^2$
 $\pi \approx 3.14$ or $\frac{22}{7}$

Quadratics



For $ax^2 + bx + c = 0$:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Discriminant $= b^2 - 4ac$

Solid Figures

Volume (V)

Right Rectangular Prism  $V = Bh$
 or $V = \ell wh$
 Cube  $V = s^3$

$$d = rt$$

distance = rate \times time

Distance Formula:

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$d = \text{distance between two points}$

Slope Formula:

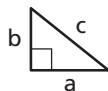
$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Slope-Intercept Equation: $y = mx + b$

Point-Slope Equation: $y - y_1 = m(x - x_1)$

Pythagorean Theorem:

$$a^2 + b^2 = c^2$$



n	\sqrt{n}	n^2
1	1.000	1
2	1.414	4
3	1.732	9
4	2.000	16
5	2.236	25
6	2.449	36
7	2.646	49
8	2.828	64
9	3.000	81
10	3.162	100
11	3.317	121
12	3.464	144
13	3.606	169
14	3.742	196
15	3.873	225
16	4.000	256
17	4.123	289
18	4.243	324
19	4.359	361
20	4.472	400
21	4.583	441
22	4.690	484
23	4.796	529
24	4.899	576
25	5.000	625

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Introduction to Gateway Mathematics

Content of Tests

The testing program titled the *Tennessee Gateway Assessment* was established to meet the Tennessee mandate for high stakes, end of course assessments in Tennessee secondary schools. These tests measure the Tennessee State Performance Indicators. Subject areas covered by the Gateway Assessments include Mathematics, Language Arts, and Science.

Test Development

For the *Tennessee Gateway Assessment*, professional item writers experienced in each of the content areas researched and wrote the items. Professional editors and test developers carefully reviewed all items and test directions for content and accuracy. To provide a large pool of items for final test selection, the test developers created approximately 50% more items as were needed in the final editions of the tests.

After the items were field tested, student responses were analyzed. Professional content editors and researchers carefully reviewed items, their data, and test directions for content, suitability, and accuracy before including certain items and test directions in operational tests.

Test Administration

Tennessee Gateway Assessment tests are given to students as they are completing courses that are included in the program. Tests may be given midyear for block schedules or at the end of the year.

Each test contains 62 multiple-choice questions.

You will have ample time to read and answer each of the questions. Each test has been designed to be administered in one session and is untimed. The first 15 minutes are set aside to complete identifying data on the answer sheet.

A reference page, similar to the one located on the inside front cover of this Practice Test, will be on the inside front cover of the actual test. This page includes a list of formulas, equations, and tables for use during testing.

Calculator use is optional. Sharing calculators during testing is not permitted.

The following types of calculators may not be used:

- pocket organizers;
- electronic writing pads or pen input devices;
- models with built-in capability to simplify algebraic expressions, multiply polynomials, or factor polynomials (often called Computer Algebra Systems);
- models that can communicate (transfer data or information) wirelessly with other calculators.

You may use any four-function, scientific, or graphing calculator, as long as it does not have any of the features listed above.

Some prohibited calculator models are:

- Casio CFX-9970G
- Casio Algebra FX 2.0
- Hewlett-Packard HP-40G
- Hewlett-Packard HP-49G
- Texas Instruments TI-89
- Texas Instruments TI-92

(These calculators are not allowed because they have symbolic algebra capabilities.)

Tips for Taking the Test

Preparing for the test

- Take this Practice Test several times.
- Review the Tennessee Gateway Item Sampler for Mathematics located at www.state.tn.us/education/ on the Tennessee Department of Education Web site.
- Become familiar with the correct way to mark answers on the answer sheet. There is a sample answer sheet in this Practice Test.

Before the test

- Get a good night's sleep. To do your best, you need to be rested.

During the test

- Relax. It is normal to be somewhat nervous before the test. Try to relax and not worry.
- Listen. Listen to and read the test directions carefully. Ask for an explanation of the directions if you do not understand them.
- Plan your time. Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time. First answer all questions that you are sure about.
- Think. If you are not sure how to answer a question, read it again and try your best to answer the question. Rule out answer choices that you know are incorrect and choose from those that remain.

Answer Sheet for the Practice Test

1 (A)(B)(C)(D)	14 (F)(G)(H)(J)	27 (A)(B)(C)(D)	40 (F)(G)(H)(J)	53 (A)(B)(C)(D)
2 (F)(G)(H)(J)	15 (A)(B)(C)(D)	28 (F)(G)(H)(J)	41 (A)(B)(C)(D)	54 (F)(G)(H)(J)
3 (A)(B)(C)(D)	16 (F)(G)(H)(J)	29 (A)(B)(C)(D)	42 (F)(G)(H)(J)	55 (A)(B)(C)(D)
4 (F)(G)(H)(J)	17 (A)(B)(C)(D)	30 (F)(G)(H)(J)	43 (A)(B)(C)(D)	56 (F)(G)(H)(J)
5 (A)(B)(C)(D)	18 (F)(G)(H)(J)	31 (A)(B)(C)(D)	44 (F)(G)(H)(J)	57 (A)(B)(C)(D)
6 (F)(G)(H)(J)	19 (A)(B)(C)(D)	32 (F)(G)(H)(J)	45 (A)(B)(C)(D)	58 (F)(G)(H)(J)
7 (A)(B)(C)(D)	20 (F)(G)(H)(J)	33 (A)(B)(C)(D)	46 (F)(G)(H)(J)	59 (A)(B)(C)(D)
8 (F)(G)(H)(J)	21 (A)(B)(C)(D)	34 (F)(G)(H)(J)	47 (A)(B)(C)(D)	60 (F)(G)(H)(J)
9 (A)(B)(C)(D)	22 (F)(G)(H)(J)	35 (A)(B)(C)(D)	48 (F)(G)(H)(J)	61 (A)(B)(C)(D)
10 (F)(G)(H)(J)	23 (A)(B)(C)(D)	36 (F)(G)(H)(J)	49 (A)(B)(C)(D)	62 (F)(G)(H)(J)
11 (A)(B)(C)(D)	24 (F)(G)(H)(J)	37 (A)(B)(C)(D)	50 (F)(G)(H)(J)	
12 (F)(G)(H)(J)	25 (A)(B)(C)(D)	38 (F)(G)(H)(J)	51 (A)(B)(C)(D)	
13 (A)(B)(C)(D)	26 (F)(G)(H)(J)	39 (A)(B)(C)(D)	52 (F)(G)(H)(J)	

Directions for Taking the Practice Test

In this Practice Test, you will perform various mathematical operations. You may use your calculator and Reference Page located inside the front cover of this book to help you solve the problems. You may write in the open spaces in this book to work the problems, but remember to fill in the circle on your answer sheet that goes with the answer you choose for each question. Fill in the circle completely and make your mark heavy and dark. If you want to change an answer, erase the mark you made and make a new mark.

You will do the items in this Practice Test by yourself. Remember to read all the directions carefully. When you see the words *Go On* at the bottom of the page, go to the next page. When you come to the word STOP, you have finished this test. When you have finished, you may check your answers.

On your answer sheet, find Number 1. Mark your answers beginning with Number 1. You may begin.

Stop when you have finished the test.

At the end of the Practice Test, make sure that all your marks are heavy and dark and that you have completely erased any marks that you do not want.

Turn to Page 38 and locate the Answer Key. Check your answers and review those items that you marked incorrectly.

Gateway Mathematics Practice Test

1 Simplify: $4 \cdot x \cdot y \cdot y \cdot y \cdot 7 \cdot y \cdot x \cdot x$

- A** $11xy$
- B** $28x^4y^3$
- C** $28x^3y^4$
- D** $47x^4y^3$

2 What is the opposite of 0.87?

- F** -0.87
- G** 0.0115
- H** 1.149
- J** 0.87

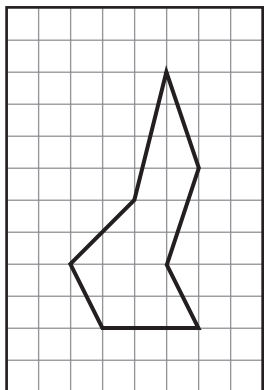
3 Solve: $2x + 8 = -26$

- A** -36
- B** -17
- C** -9
- D** 9

4 Simplify: $\sqrt{36}$

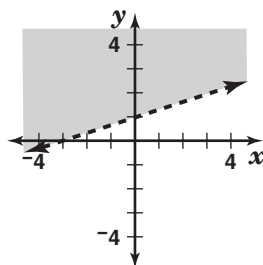
- F** 6
- G** $3\sqrt{6}$
- H** 18
- J** $6\sqrt{3}$

- 5 Estimate the area of the irregular figure shown on the grid.

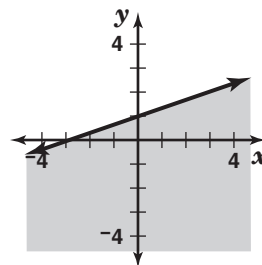


- A 8
B 10
C 15
D 18

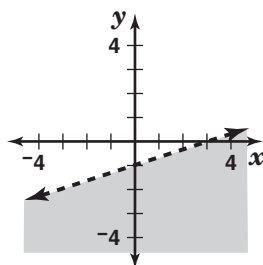
- 6 Which of these graphs best represents the inequality $y \leq \frac{1}{3}x + 1$?



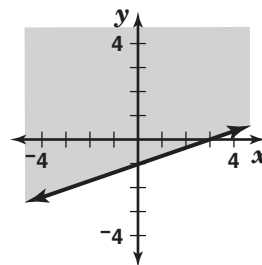
F



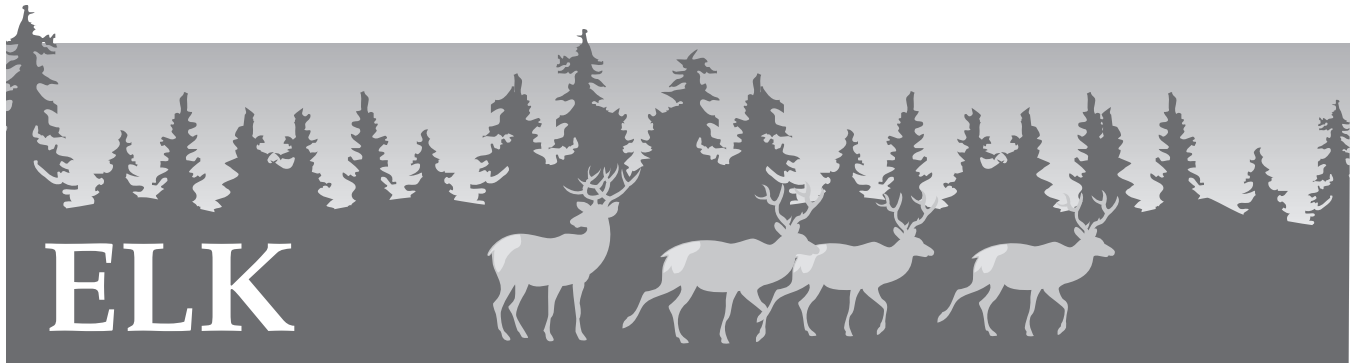
H



G



J

**Directions**

Every year, rangers count the number of elk living in a park. The table shows the results. Use the table to do Numbers 7 through 12.

Year	Number of Elk
1994	225
1995	209
1996	249
1997	253
1998	267
1999	237

- 7 Which of these expressions represents the average rate of change in the number of elk between 1994 and 1999 in elk per year?

A $\frac{1999 - 1994}{237 - 225}$

B $\frac{225 - 237}{1999 - 1994}$

C $\frac{1999 - 237}{1994 - 225}$

D $\frac{237 - 225}{1999 - 1994}$

- 8** What was the median number of elk for the period shown in the table?

F 231
G 240
H 243
J 251

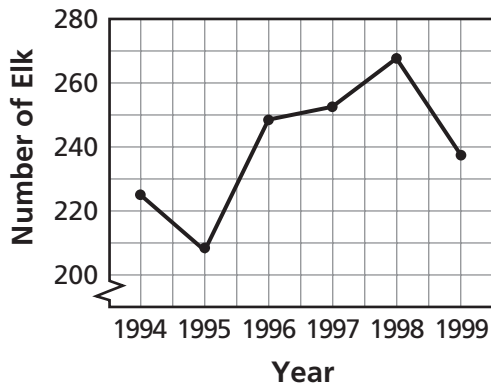
- 9** If the number of elk increases after 1999 at a rate of 8 elk per year, how many elk will there be in 2011 ?

A 96
B 245
C 325
D 333

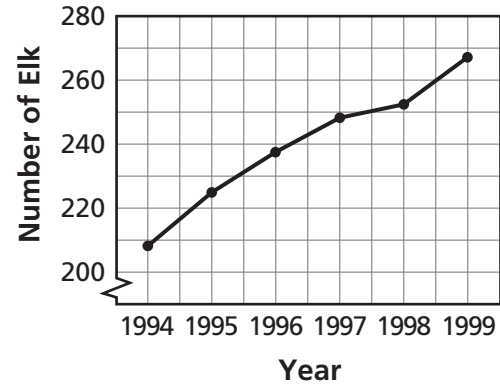
- 10** In 1995, there were 110 female elk and 99 male elk in the park. What was the ratio of male elk to female elk?

F 9 to 10
G 9 to 11
H 10 to 11
J 11 to 12

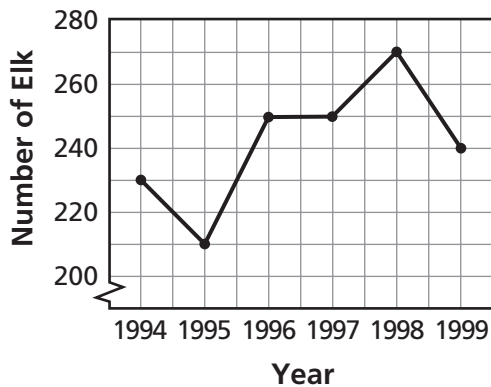
- 11 Which of these graphs most accurately depicts the number of elk as a function of the year?



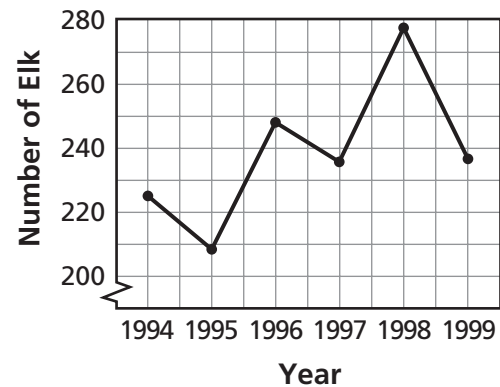
A



C



B



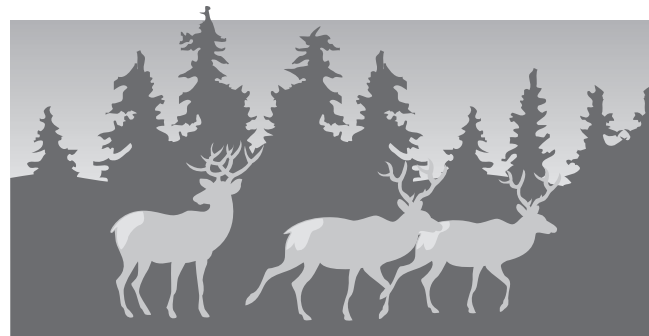
D

- 12 The numbers of elk a ranger saw on 5 days are listed below.

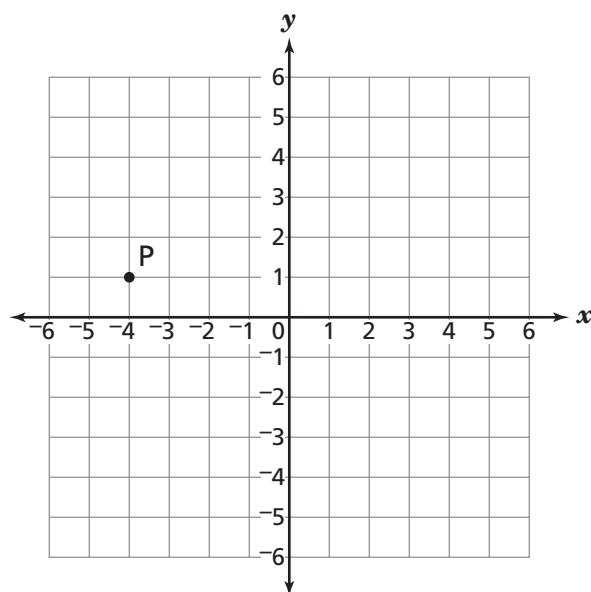
12, 11, 8, 14, 25

What is the mean number of elk the ranger saw per day?

- F 8
- G 12
- H 14
- J 17



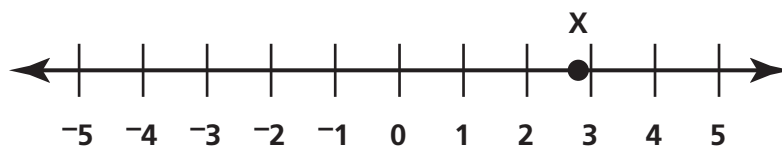
13



What are the coordinates of Point P?

- A (4, 1)
- B (1, 4)
- C (-4, 1)
- D (-1, 4)

14 Which is the best estimate of the coordinate of Point X?



- F 2.2
- G 2.5
- H 2.8
- J 3.2

Go On ►

15 Simplify: $(7x - 5)(3x + 5)$

- A $15x^2 + 20x - 25$
- B $20x^2 + 21x - 25$
- C $21x^2 + 20x - 25$
- D $35x^2 + 21x - 25$

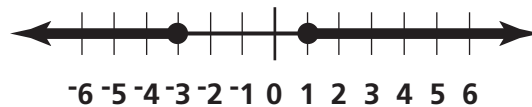
16 Which set of numbers is ordered from least to greatest?

- F $-31, -5, 1.2, -0.21$
- G $-31, -5, -0.21, 1.2$
- H $-5, -31, -0.21, 1.2$
- J $-0.21, 1.2, -5, -31$

17 Simplify: $5^2(3 + 4) - 3^2(6 - 3)$

- A 52
- B 148
- C 202
- D 498

18 Which of these graphs represents $x \leq -3$ or $x \geq 1$?



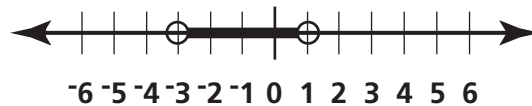
F



G



H



J

19 What is the reciprocal of $\frac{3}{4}$?

A $-\frac{4}{3}$

B $-\frac{3}{4}$

C $\frac{3}{4}$

D $\frac{4}{3}$

20 Simplify: $5 \bullet 11 \bullet a \bullet b \bullet b \bullet b$

F $16ab^3$

G $55ab^3$

H $16a + 3b$

J $55a + 3b$

21 Solve: $2 - 2(2x - 2) = -(3x + 3)$

A $-\frac{1}{7}$

B $\frac{3}{7}$

C 3

D 9

22 Solve: $5(x + 2) + 3x = -14$

F -12

G -3

H -2

J $\frac{1}{2}$

23 Simplify: $2(3x - 6) - (2x - 5)$

A $4x - 17$

B $4x - 11$

C $4x - 7$

D $4x + 7$

24 What is the value of the expression $3x(x - 2y)$ when $x = 2$ and $y = 3$?

F -24

G -12

H -9

J 48

25 Solve: $5x - 13 = 7x - (4x - 27)$

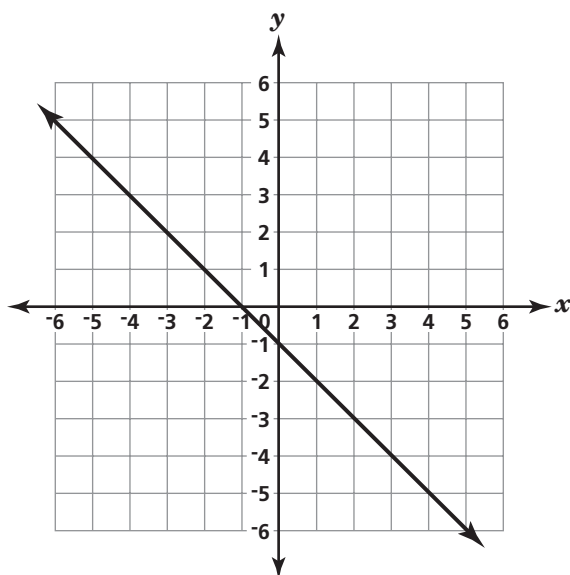
A -20

B -7

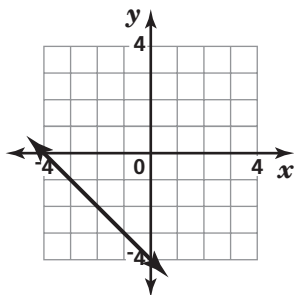
C 7

D 20

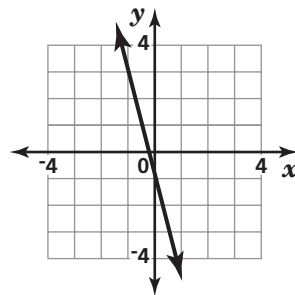
- 26 The graph represents the equation $y = -x - 1$.



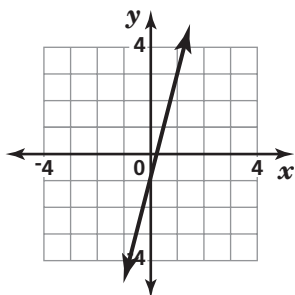
What will the graph look like when the coefficient of x changes from -1 to -4 ?



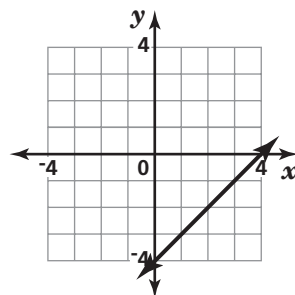
F



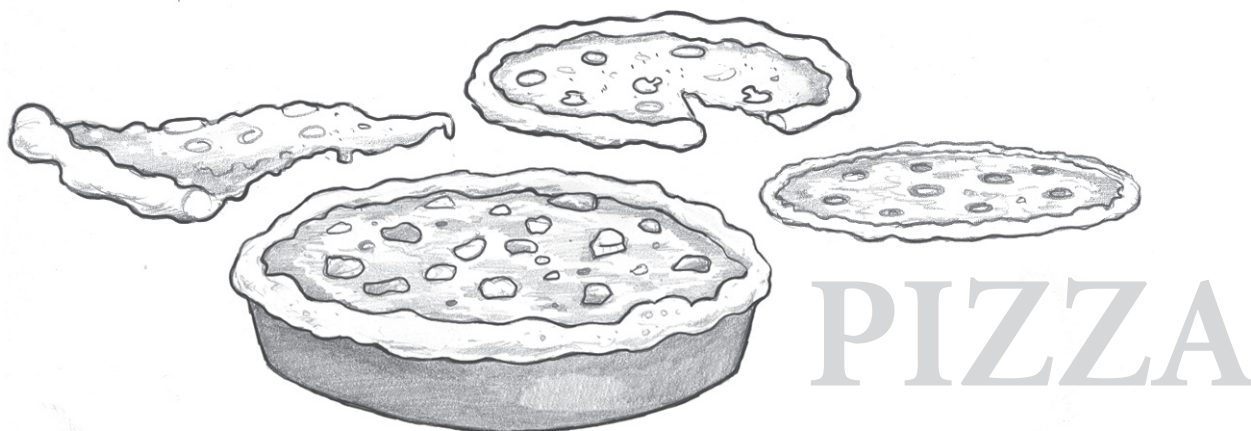
H



G

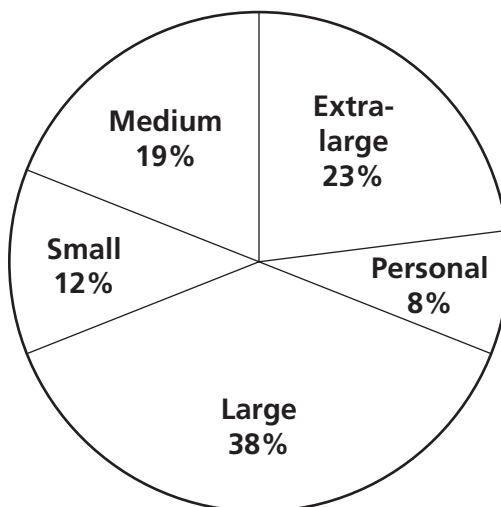


J

**Directions**

Shelby works at Bob's Pizza Palace. Do Numbers 27 through 33 about Shelby and her work.

- 27** Shelby kept a record of the number of pizzas of different sizes sold one day. Her record is shown in the circle graph.



Which of these statements is true?

- A** Extra-large pizzas sold the most.
- B** Personal pizzas sold more than small pizzas.
- C** More than $\frac{1}{4}$ of the pizzas sold were medium.
- D** More than $\frac{1}{2}$ of the pizzas sold were large or extra-large.

Go On ►

- 28** The table shows the price of a medium pizza for the past 5 years.

Year	Price of Medium Pizza
1	\$5.85
2	\$6.15
3	\$6.45
4	\$6.75
5	\$7.05
6	?

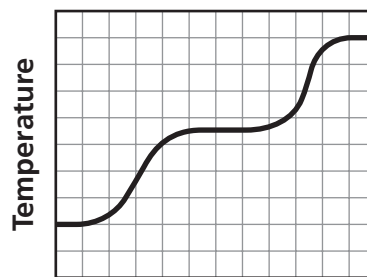
If the price continues to increase at the same rate, what will be the price of a medium pizza in Year 6 ?

- F** \$7.20
G \$7.25
H \$7.30
J \$7.35
- 29** A medium pizza has a diameter of 14 inches. What is the area? (Use $\pi = \frac{22}{7}$.)
- A** 44 square inches
B 88 square inches
C 154 square inches
D 616 square inches

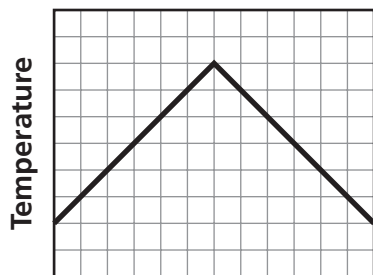
- 30** Shelby put a frozen pizza in the oven. The pizza quickly heated up. Then she took the pizza out of the oven. The pizza slowly cooled down. Which graph best models the temperature of the pizza as a function of time?



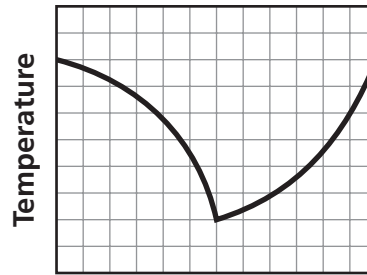
Time

F

Time

H

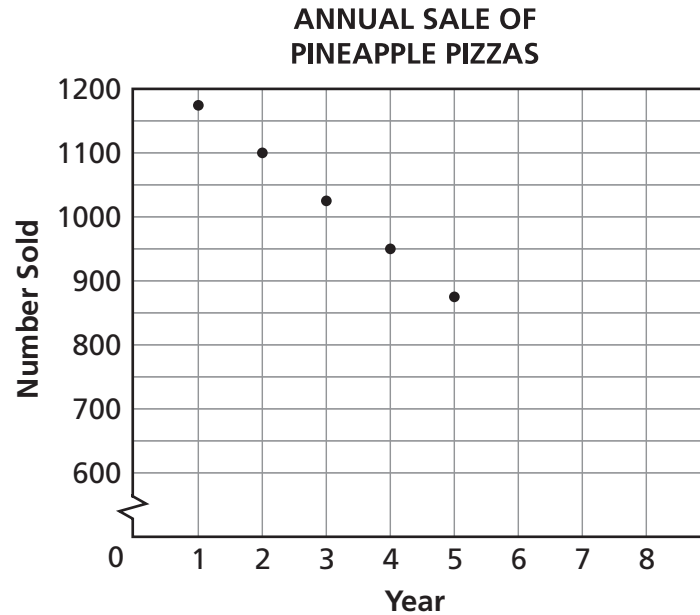
Time

G

Time

J

- 31** The owner of Bob's Pizza Palace has kept a record of the number of pineapple pizzas sold each year. The record is shown in the graph.



If this pattern continues, how many pineapple pizzas would be sold in Year 8 ?

- A** 600
 - B** 650
 - C** 700
 - D** 750
- 32** Shelby earns \$7.05 per hour. One day she worked 4 hours and 50 minutes.

Which is closest to the amount Shelby earned that day?

- F** \$28
- G** \$32
- H** \$35
- J** \$40

- 33** Shelby wants to find the volume of a large, deep-dish pizza. She uses the following expression:

$$\pi r^2 h$$

The radius of the pizza (r) is 8 inches, and the height (h) is 1.5 inches. Use the expression to find the volume to the nearest cubic inch.

- A** 67 cubic inches
- B** 96 cubic inches
- C** 301 cubic inches
- D** 947 cubic inches

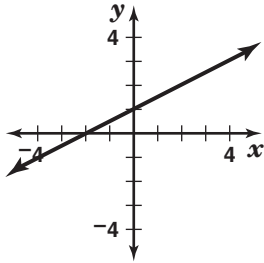
-
- 34** The table below shows prices charged for washing different numbers of loads of clothes.

Number of Loads (L)	Total Cost (C)
1	\$2.50
2	\$5.00
3	\$7.50
4	\$10.00

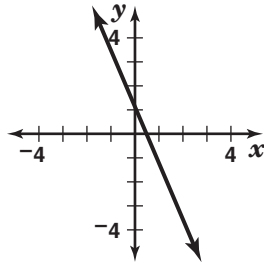
Which function generalizes the pattern of the data in the table?

- F** $L = 2.50C$
- G** $C = 2.50L$
- H** $L = C + 2.50$
- J** $C = L + 2.50$

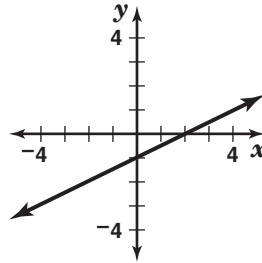
- 35 Which of these graphs represents $y = -\frac{1}{2}x + 1$?



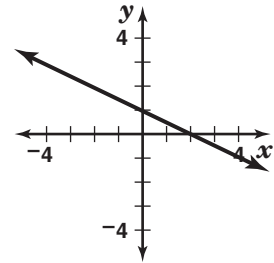
A



B

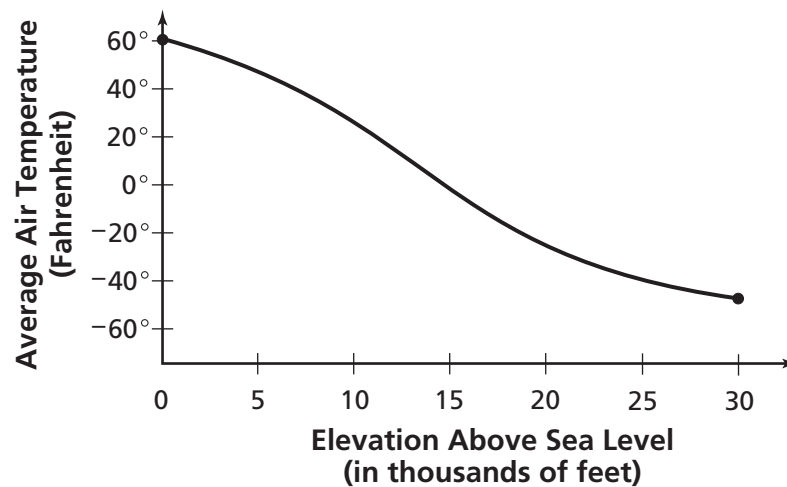


C



D

- 36 The graph depicts average air temperature as a function of elevation above sea level.



What is the domain (D) of this function?

- F $-60 \leq D \leq 60$
- G $0 \leq D \leq 60$
- H $0 \leq D \leq 30,000$
- J $5,000 \leq D \leq 30,000$

- 37** As an airplane takes off, it ascends 50 vertical feet for every 150 horizontal feet it travels. Which one of these equations gives the height of the airplane during takeoff (h) in terms of x , the horizontal distance traveled?

A $h = \frac{1}{3}x$

B $h = 3x$

C $h = 50x$

D $h = 100x$

- 38** Mr. Jones earns \$20 per hour and works between 15 and 30 hours per week. Mrs. Jones earns \$25 per hour and works between 30 and 40 hours per week. Which of these inequalities represents the possible range of total weekly income for Mr. and Mrs. Jones?

F $\$300 \leq x \leq \$1,000$

G $\$450 \leq x \leq \$1,200$

H $\$975 \leq x \leq \$1,550$

J $\$1,050 \leq x \leq \$1,600$

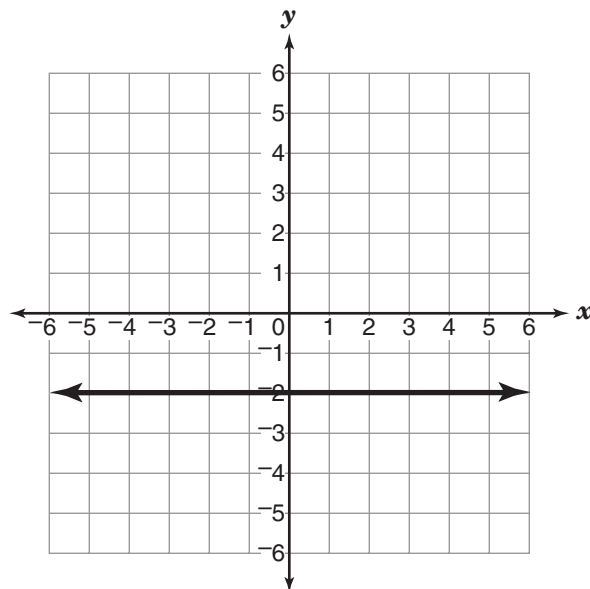
- 39** Keely can buy different brands of flour in different sizes as shown in the table.

Which one of the following statements is true?

Brand	Size	Price
Wonder-Wheat	5 pounds	\$3.20
Power-Flour	10 pounds	\$7.40
Baker's Best	25 pounds	\$14.95

- A** Baker's Best is the least expensive brand per pound.
B Wonder-Wheat is the most expensive brand per pound.
C Baker's Best is more expensive per pound than Power-Flour.
D Power-Flour and Wonder-Wheat cost the same amount per pound.

- 40 What is the slope of the line on the graph?

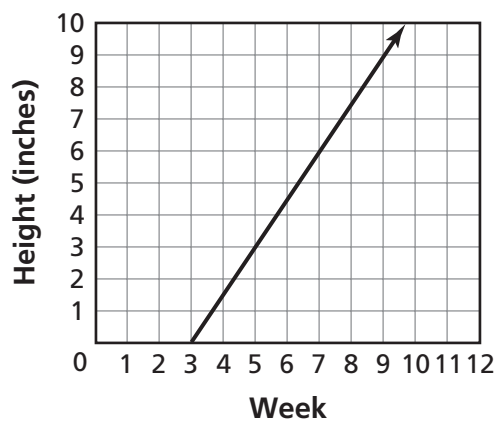
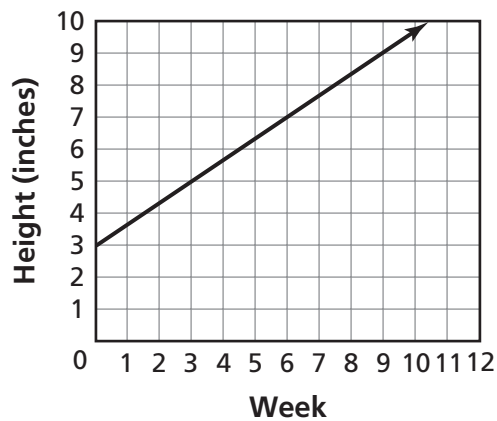
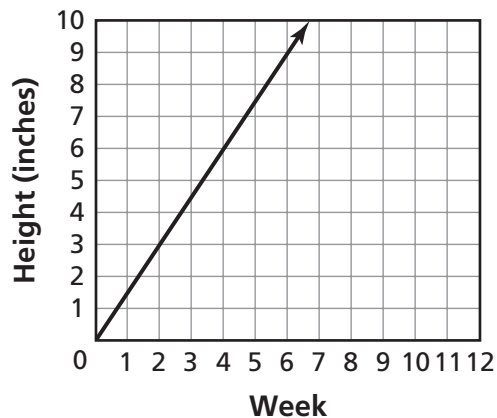
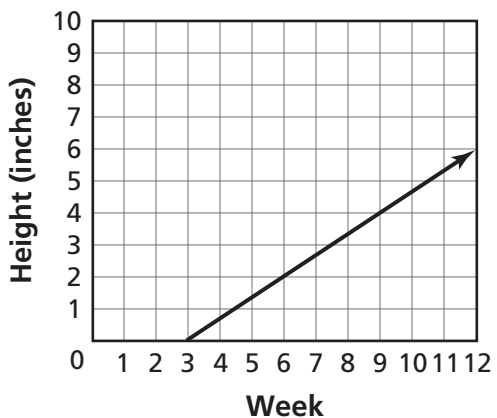


- F** -2
G -1
H 0
J undefined slope
- 41 Which set represents the solutions to the following equation?

$$x^2 - 3x - 40 = 0$$

- A** $\{-8, -5\}$
B $\{-8, 5\}$
C $\{8, -5\}$
D $\{8, 5\}$

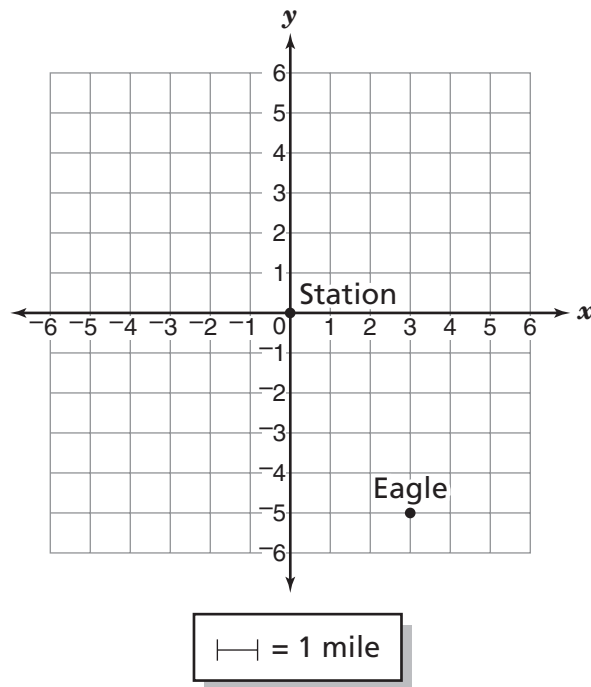
- 42** Shradda grew a sweet pea plant from a seed. Every week she measured the plant. The plant sprouted on Week 3. Then it grew $1\frac{1}{2}$ inches every week. Which of these graphs best represents the height of the plant?

**F****H****G****J**

- 43** Which equation represents the monthly cost (c) of using a cell phone that has a monthly rate of \$10, plus \$0.25 per minute? Let t = number of minutes the cell phone is used.

A $c = 0.10t + 25$
B $c = 0.25t + 10$
C $c = 10t + 0.25$
D $c = 25t + 10$

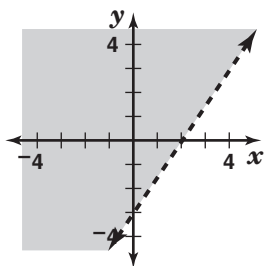
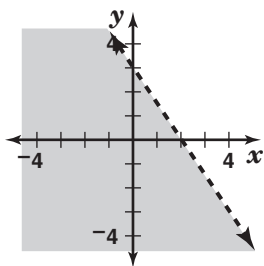
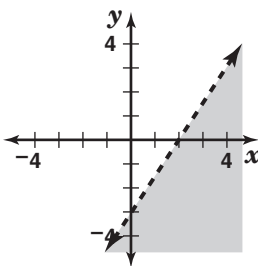
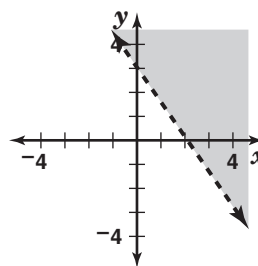
- 44** Biologists tagged an eagle. They released it from a research station. The next day they plotted the location of the eagle on a grid as shown.



How far was the eagle from the station?

F 6 miles
G 8 miles
H $\sqrt{8}$ miles
J $\sqrt{34}$ miles

- 45 Which of these graphs represents the inequality $2y > 3x - 6$?

**A****B****C****D**

- 46 Shamika bought 8 programs for her computer. The list shows the prices of the programs.

\$12, \$37, \$8, \$78, \$12, \$15, \$21, \$17

What is the median of the prices of the programs?

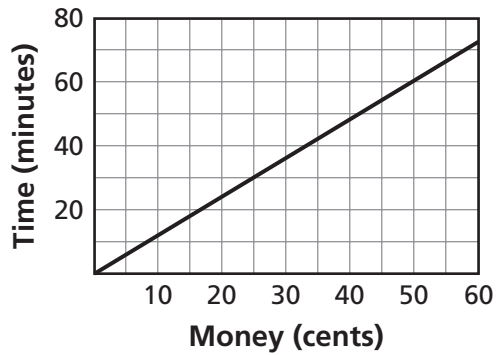
- F** \$12
- G** \$16
- H** \$19
- J** \$25

- 47 Each bookcase in a library holds an average of 115 books. The library has 5,433 books and has the minimum number of bookcases necessary to hold them. How many more books can the library buy without needing another bookcase?

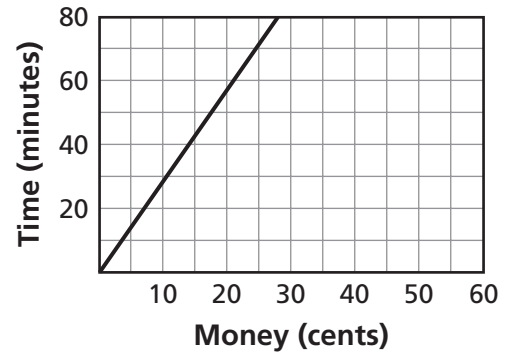
- A** 28 books
- B** 38 books
- C** 68 books
- D** 87 books

- 48** Eric parked at a parking meter. The table lists the amount of time available on the meter for different amounts of money. Which of these graphs depicts the time available on the meter as a function of money?

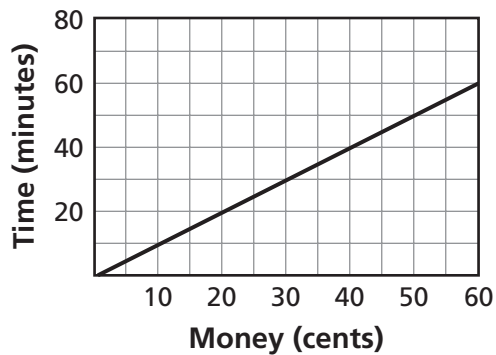
Money Amount	Time (in minutes)
nickel	10
dime	20
quarter	50



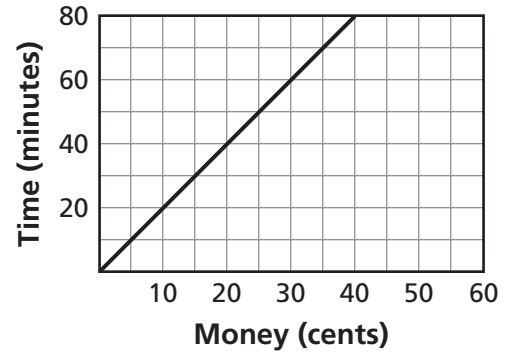
F



H



G



J

- 49** Juan went to the pet store where he shopped for cat food. He had the three following brands to choose from:

Brand	Size (pounds)	Price
Bouncy Cat	10	\$8.00
Happy Kitty	4	\$6.00
Feline Food	20	\$25.00

Which one of the following statements is true?

- A** Bouncy Cat is the least expensive per pound.
- B** Happy Kitty is the least expensive per pound.
- C** Feline Food is the most expensive per pound.
- D** Feline Food and Happy Kitty cost the same amount per pound.

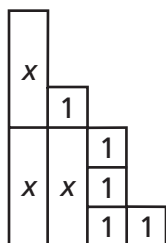
- 50** The table shows how long Shemika spent driving and shopping while she was doing errands.

Activity	Time (minutes)
Driving to Grocery Store	12
Shopping at Grocery Store	14
Driving to Pet Store	5
Shopping at Pet Store	6
Driving Home	11

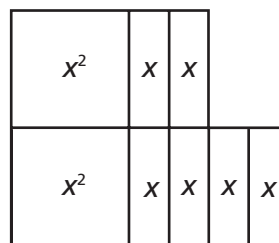
Which of these is the correct ratio of total driving time to total shopping time?

- F** 6 to 7
- G** 7 to 5
- H** 23 to 20
- J** 23 to 25

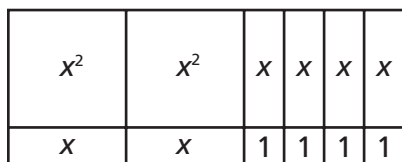
- 51 Which of these figures is an area representation of $(2x + 4)$ multiplied by $(x + 1)$?



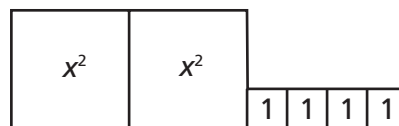
A



C

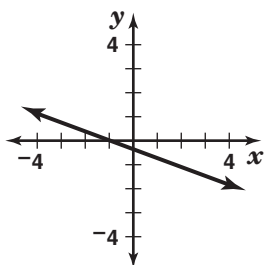


B

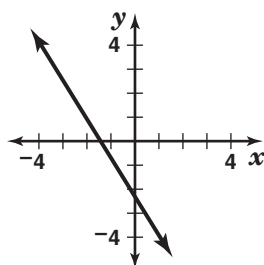


D

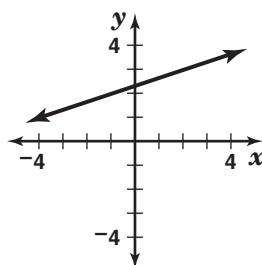
- 52 A line contains the points $(1, -4)$ and $(-1, 2)$. Which of these graphs illustrates this line?



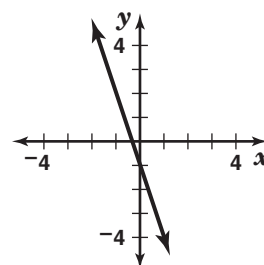
F



G



H



J

- 53** Look at the geometric pattern below.

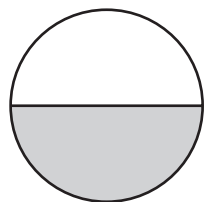


Figure 1

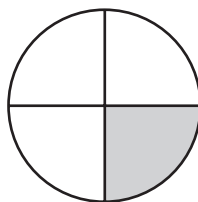


Figure 2

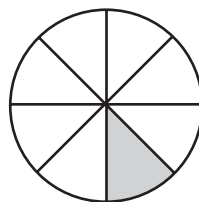
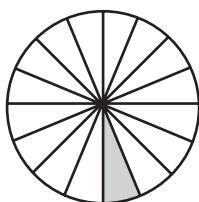


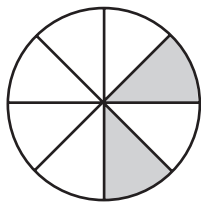
Figure 3

Figure 4

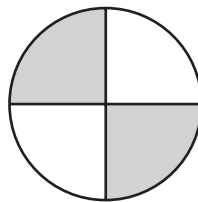
Which of the following best represents Figure 4 of the pattern?



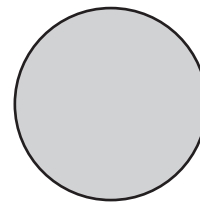
A



B



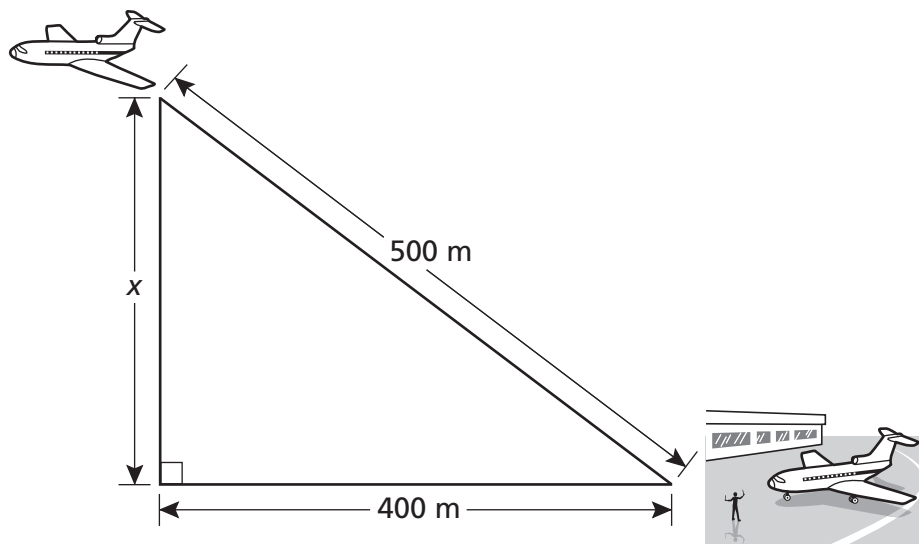
C



D

- 54** According to the diagram, what is the altitude of the airplane?

- F** 10 meters
G 100 meters
H 300 meters
J 700 meters



Note: Figure is not drawn to scale.

- 55 The statement “seven times a number x divided by 3” is represented by which of these expressions?

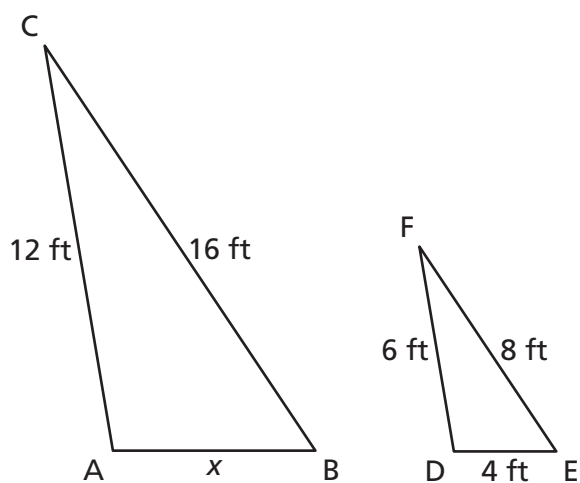
A $\frac{7x}{3}$

B $\frac{3x}{7}$

C $\frac{3}{7x}$

D $\frac{7}{3x}$

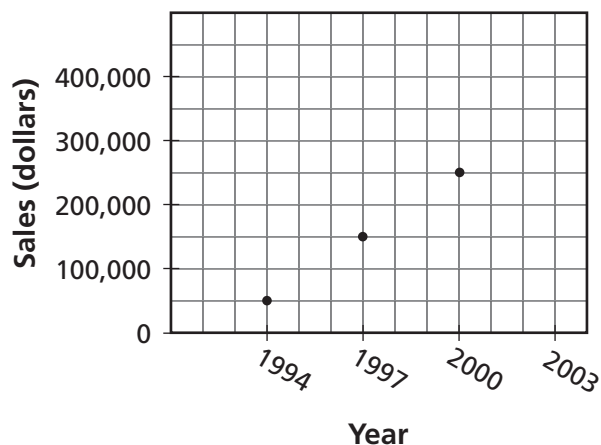
- 56 If $\triangle ABC$ is similar to $\triangle DEF$, what is the value of x ?



Note: Figures are not drawn to scale.

- F 2 feet
G 6 feet
H 8 feet
J 18 feet

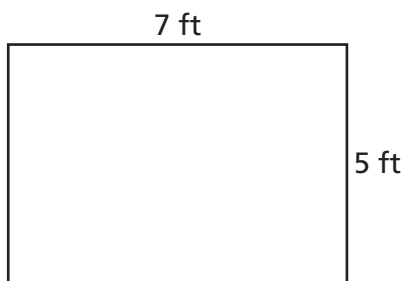
- 57** The graph shows the total sales per year for a store.



If sales continued to increase at the same rate, what were the total sales in the year 2003?

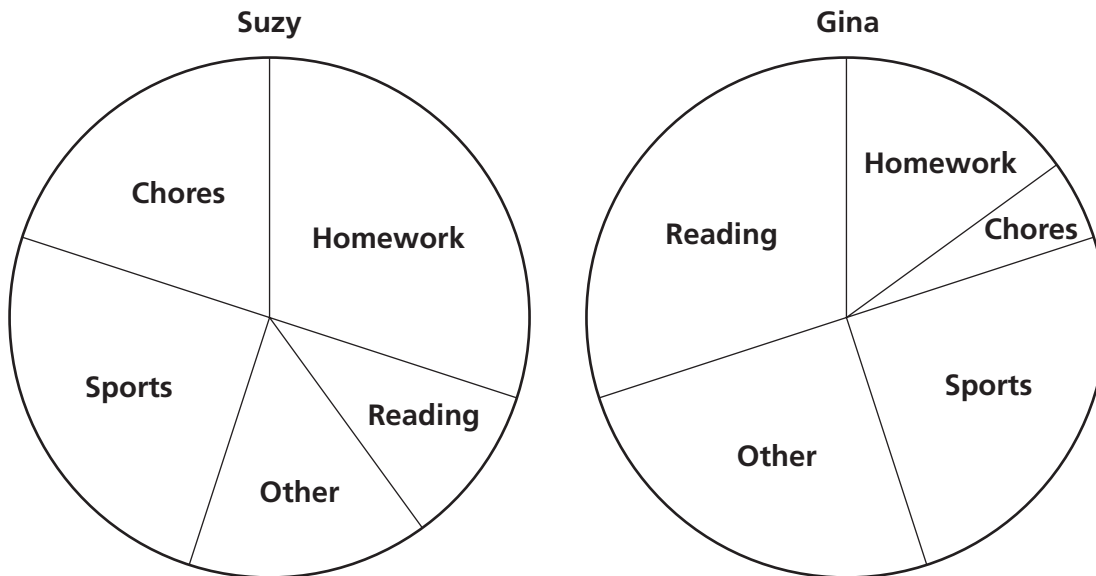
- A** \$250,000
- B** \$300,000
- C** \$350,000
- D** \$400,000

- 58** The figure shows the dimensions of Ashley's bathroom. What is the area of the bathroom?



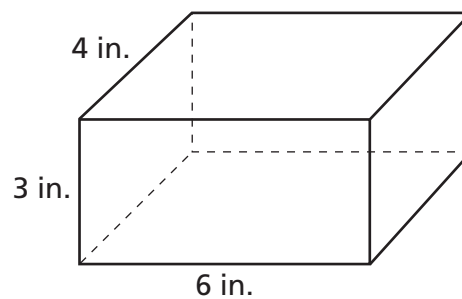
- F** 12 square feet
- G** 24 square feet
- H** 30 square feet
- J** 35 square feet

- 59** One day, Suzy and Gina each recorded how much time they spent on different activities. Their records are shown in the circle graphs.



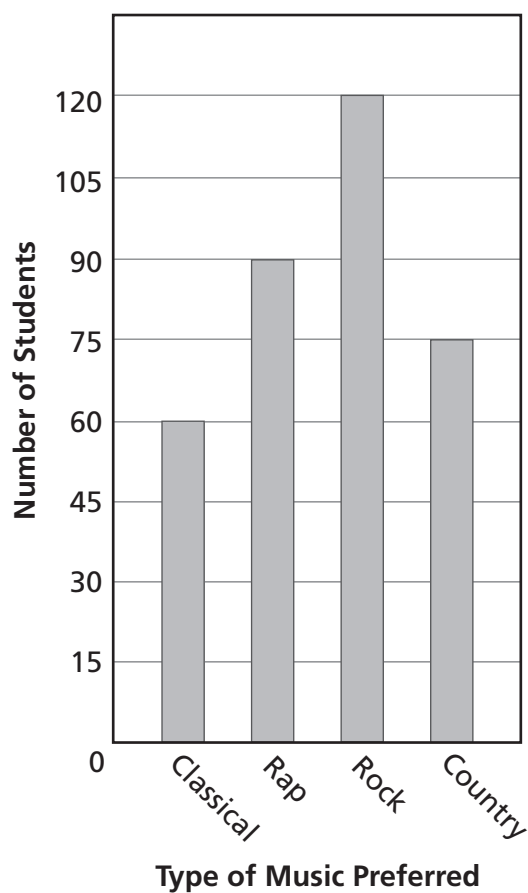
Suzy and Gina spent about the same percentage of time on which activity?

- A** Chores
 - B** Sports
 - C** Reading
 - D** Homework
- 60** What is the maximum number of 1-inch sugar cubes that will fit into this rectangular solid?



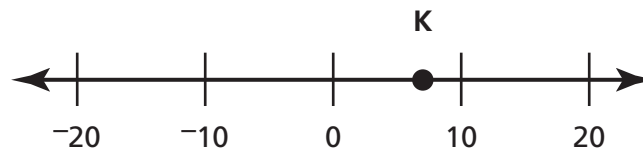
- F** 22
- G** 27
- H** 72
- J** 108

- 61** According to the bar graph, how many students prefer country music?



- A** 60 students
- B** 75 students
- C** 90 students
- D** 120 students

- 62 Which is the best estimate of the coordinate of Point K on the number line?



- F 3
- G 7
- H 10
- J 13

Answer Key

Item	Correct
1	C
2	F
3	B
4	F
5	C
6	H
7	D
8	H
9	D
10	F
11	A
12	H
13	C
14	H
15	C
16	G
17	B
18	F
19	D
20	G
21	D

Item	Correct
22	G
23	C
24	F
25	D
26	H
27	D
28	J
29	C
30	F
31	B
32	H
33	C
34	G
35	D
36	H
37	A
38	J
39	A
40	H
41	C
42	F

Item	Correct
43	B
44	J
45	A
46	G
47	D
48	J
49	A
50	G
51	B
52	J
53	A
54	H
55	A
56	H
57	C
58	J
59	B
60	H
61	B
62	G

Reporting Categories

Below you will find that each item has been linked to its corresponding Reporting Category. These six Reporting Categories will be used to report scores from the actual test.

You can find the Reporting Categories and their Performance Indicators grouped together in the Tennessee Gateway Item Sampler for Mathematics located at www.state.tn.us/education/ on the Tennessee Department of Education Website.

Item	Reporting Category
1	2 – Algebraic Expressions
2	1 – Number Sense/Theory
3	3 – Equations and Inequalities
4	1 – Number Sense/Theory
5	6 – Spatial Sense and Geometric Concepts
6	3 – Equations and Inequalities
7	4 – Real-World Problems
8	4 – Real-World Problems
9	4 – Real-World Problems
10	1 – Number Sense/Theory
11	5 – Graphs and Graphing
12	4 – Real-World Problems
13	5 – Graphs and Graphing
14	1 – Number Sense/Theory
15	2 – Algebraic Expressions
16	1 – Number Sense/Theory
17	1 – Number Sense/Theory
18	3 – Equations and Inequalities
19	1 – Number Sense/Theory
20	2 – Algebraic Expressions
21	3 – Equations and Inequalities
22	3 – Equations and Inequalities

Item	Reporting Category
23	2 – Algebraic Expressions
24	2 – Algebraic Expressions
25	3 – Equations and Inequalities
26	5 – Graphs and Graphing
27	4 – Real-World Problems
28	2 – Algebraic Expressions
29	6 – Spatial Sense and Geometric Concepts
30	5 – Graphs and Graphing
31	5 – Graphs and Graphing
32	1 – Number Sense/Theory
33	2 – Algebraic Expressions
34	3 – Equations and Inequalities
35	5 – Graphs and Graphing
36	5 – Graphs and Graphing
37	4 – Real-World Problems
38	4 – Real-World Problems
39	4 – Real-World Problems
40	5 – Graphs and Graphing
41	3 – Equations and Inequalities
42	5 – Graphs and Graphing
43	3 – Equations and Inequalities
44	6 – Spatial Sense and Geometric Concepts
45	3 – Equations and Inequalities
46	4 – Real-World Problems
47	1 – Number Sense/Theory
48	5 – Graphs and Graphing
49	4 – Real-World Problems
50	1 – Number Sense/Theory
51	2 – Algebraic Expressions
52	5 – Graphs and Graphing

Item	Reporting Category
53	6 – Spatial Sense and Geometric Concepts
54	6 – Spatial Sense and Geometric Concepts
55	2 – Algebraic Expressions
56	6 – Spatial Sense and Geometric Concepts
57	5 – Graphs and Graphing
58	6 – Spatial Sense and Geometric Concepts
59	4 – Real-World Problems
60	6 – Spatial Sense and Geometric Concepts
61	4 – Real-World Problems
62	1 – Number Sense/Theory

